92-1800

No. __-____

Supreme Court, U.S.
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1992

SCOTT E. LEWIS and VICTORIA LEWIS,

Petitioners,

—against—

BABCOCK INDUSTRIES, INC., MCDONNELL DOUGLAS CORP. and GENERAL DYNAMICS CORPORATION,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED FOR REVIEW

Does the Government contractor defense recognized by this Court in *Boyle v. United Technologies Corp.*, 487 U.S. 500 (1988) apply to preempt state tort cause of action where the Government does not approve reasonably precise specifications for the design feature at issue, a prerequisite under *Boyle*, but orders replacement parts years after the design process?

Does the Government's stock purchase of replacement parts create the "significant conflict" between federal interests and policies and state tort law necessary for application of the *Boyle* defense?

Did the circuit court improperly grant summary judgment to respondent manufacturers and improperly assess on its own whether the Government contractor defense had been established, in violation of *Boyle*, where there is no proof in the record that the Government had knowledge of the failed component's material design defects when it ordered replacement parts?

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PETITION FOR WRIT OF CERTIORARI

OPINIONS BELOW

The opinion of the Court of Appeals for the Second Circuit (1a)[1] is reported at 985 F.2d 83 (2d Cir. 1993). It affirmed the unreported decision of the United States District Court, Southern District of New York, granting respondents' motions for summary judgment dismissing the complaint. (17a).

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1 References herein to "_____a" are to pages in the appendix to this petition.

JURISDICTION

The judgment of the Court of Appeals (31a) was entered on February 4, 1993. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

PROVISION OF LAW INVOLVED

This case involves the applicability and scope of the Government contractor defense recognized in *Boyle v. United Technologies Corp.*, 487 U.S. 500 (1988).

STATEMENT OF THE CASE

On February 23, 1987, a United States Air Force F-111-F jet fighter, piloted by petitioner Scott Lewis, crashed in England. During a landing approach, the aircraft suffered a malfunction of the control system. Captain Lewis' fighter suddenly rolled dangerously to one side. Lewis and weapons systems officer Casella reacted to the emergency by initiating ejection of the self-contained crew module from the airplane.

Upon initiation of ejection, the manufacturers' design was for all subsequent operations to be completely automatic and beyond control of the crew until safe landing. The automatic design included separation of the crew module from the plane, deployment of the parachute system and safe cushioned landing on large bags at the bottom of the module. The parachute system included two cables (one forward and the other aft) connecting the crew module to a parachute. The two repositioning cables were supposed to maintain the crew module in a horizontal position throughout the descent to safely land on protective cushions.

In this case, after safe ejection, separation and parachute deployment, the forward repositioning cable broke during the descent, the nose of the crew module pitched down, that angle obscured the protective cushions on the bottom of the crew

module and the module's nose struck the ground in a seventy degree nose-down attitude. Without the protection of the cushioning bags, both crew members sustained severe spinal injuries.[2]

Respondent General Dynamics was the prime contractor for the F-111 fighter jet. General Dynamics subcontracted the design of the crew escape system to respondent McDonnell Douglas. Respondent Babcock Industries was the manufacturer of the subject forward repositioning cable. The parachute cable was designed by McDonnell Douglas in conjunction with Babcock and reviewed and/or approved by General Dynamics. The accident aircraft was delivered to the Government in 1972.

The design and selection of materials for the parachute cable were made solely by the respondents, not the Government. The respondents selected high carbon steel and polyolefin for the parachute cable with full knowledge of their inadequacies. High carbon steel was extremely susceptible to corrosion from moisture, a fact known to Babcock, McDonnell Douglas and General Dynamics. The polyolefin cover was easily penetrable. Petitioners' expert testified the cover had so little resistance to abrasion and penetration that it could be penetrated by one's fingernail. It is not contested that the parachute's forward repositioning cable on the crew module occupied by Capt. Lewis broke due to corrosion of the carbon steel from moisture entering after the polyolefin cover was damaged.

The Government's general design standards provided that the parachute assembly have at least a seven year service life, a reliability rate of at least .999 under any combination of environments and loads, protection against deterioration from exposure to climactic and environmental conditions, shall be "corrosion resisting", and that the crew module shall provide "safe escape" and "landing". The respondents' design utilizing inadequate materials breached all of these requirements. The

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2 Casella commenced a New York state court action against the same defendants which is pending.

respondents never performed required environmental tests on the cable.

No Government document provided for the use of a particular type of steel or cover. No document calling out the cable's and its cover's materials was approved by the Government. There are no detailed (or even general) specifications in the record which call out the cable or its materials. None of the three drawings of the cable in the record—created by respondents—refers to high carbon steel or polyolefin cover and there is not a shred of evidence that even these drawings were reviewed and approved by the Government.

The Government reviewed, tested and "qualified" "critical items" on the F-111. While the crew module as an overall unit was a critical item, integral parts, specifically the cable, were expressly designated as a non-critical item. The record contains no proof whatsoever that the cable (and its composition materials) was reviewed and approved by the Government.

General Dynamics' List of Qualifications distinguished between the "crew module", designated as "E", a critical item (JA 1162, 1251) and the cable, designated as "O", a non-critical item (JA 1162, 1261, 5531-33).[3] General Dynamics' List of Critical Items listed the crew module, its ejection seat, rocket motor, main parachute and canopy, but not the cable (JA 1032). Only certain components of the crew module, such as the ejection seat and rocket motor, were designated as qualified parts subject to testing and approval. The cable was not (JA 1032).

Respondents argued that the Government reviewed, tested and approved the "crew module", but there is not a shred of proof that the cable, a constituent component, and its materials, was reviewed, tested or approved. Indeed, Government witnesses who dealt with the cable testified they were unaware of the specific materials for the cable prior to the subject accident.

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3 References to "JA ____" are to the Joint Appendix in the Second Circuit.

Cable damage due to corrosion was discovered in 1966, 1969 and 1971. Cable damage continued to be observed in 1979 and 1980 after a change in the windshield fairing (windshield center beam cover) in the late 1970's.[4] General Dynamics told the Air Force that the cable problems were caused by rivet heads, and later, by windshield fairing clips.

In and before December 1980, Government personnel examined several cables, and performed tensile load tests. A report concluded "[w]hen the cover remains intact, long term protection from corrosion can be expected. However, if the cover thickness is penetrated, moisture can contaminate the cable surface and corrosion results" (JA 867). The report also concluded that "[t]he primary cause of damage" to the cable's cover is from clips that hold the fairing to the module[5] (*Id.*). The December 1980 report recommended replacement of all cables because the "insidious nature of the corrosion makes it impossible to determine when the existing cable assemblies will become unserviceable" (JA 868).

In February 1982, an order issued for the replacement of all forward repositioning cables "to eliminate the possibility of cable failure due to corrosion" (JA 873). The subject replacement cable was installed in 1983.

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4 Due to a change in the thickness of the windshield, a new windshield fairing was made by Pittsburgh Plate Glass Industries. The PPG windshield fairing was held in place in a channel by the same clips as before. The accident cable was corroded and broke in two places. One was under the PPG windshield fairing and the other was not. Clearly it was the inadequacy of the materials and not the change in the fairing that caused this failure. The PPG fairing was not the sole cause of the cable break, and no Government investigator concluded that it was.

5 The report's author was unaware of the numerous instances of cable corrosion damage prior to 1979. The author of the report, Pat Santucci, reached his conclusions because "to my knowledge, they had been installed for years prior to finding the corrosion and as far as I knew there had never been any reports of corrosion. So I concluded that if it stayed intact, we should not have corrosion" (JA 3377).

Robert Campbell, an Air Force civilian employee involved with the cable and under whose responsibility the Government ordered replacements, was unaware at the time of the replacement order that the cable was composed of high carbon steel and polyolefin cover (JA 1580-82).[6] There is no testimony from Campbell or any other Government employee that they were aware of the cable's susceptibility to cutting and corrosion *because of the cable's composition materials*. At the time of the replacement order, Babcock was the sole source for procurement of the cable, the composition material for the cable and cover was proprietary information belonging to the manufacturer, and the Government never had the design specification or other data to manufacture or get bids for the part. Government equipment specialist Presley testified "we wouldn't have what we needed [information] to go out and compete a buy for this cable" (JA 3340-41). The Government was dependent on the manufacturer.

The record shows that at the time it ordered replacement, the Government still did not realize the underlying cause of the problem; a cover which was easily penetrable, even by a fingernail according to petitioners' expert, and a cable whose high carbon steel composition made it highly susceptible to corrosion. The Government's 1980 report that "when the cover remains intact, long term protection from corrosion can be expected", confirms its failure to know and appreciate the material design defects; the cover was inherently not capable of remaining intact for long, because of its easy penetrability, during handling, maintenance and in the aircraft's vibratory environment during operation. The replacement order's "purpose" to "eliminate the possibility of cable failure due to corrosion" also reflects ignorance of the inherent defect which continued to plague the cables. Respondents had misled the

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6 Campbell testified he did not become aware of the cable's materials until after post-accident lab analysis of the accident cable (JA 1580-82).

Government into believing that the modification to the windshield was the cause.

It was not until *after* the subject crash that Government metallurgical investigation of the accident cable "revealed the material composition to be . . . carbon steel . . . [which is] extremely susceptible to any type of corrosion and will corrode quickly" (JA 628). It was also determined that the subject cable failed "prematurely" due to corrosion, and had two fracture and failure locations (*Id.*). As a result of the subject accident, a Government equipment specialist wrote that "a serious deficiency with the repositioning cable was brought to light" (JA 912).

The Decision Below

After the completion of discovery, respondents moved for summary judgment invoking contractor immunity under the Government contractor defense established in *Boyle*. The district court granted the motions and the Second Circuit affirmed. The circuit court rejected respondents' claims that pervasive Government involvement in the F-111 design and its "overall" approval of the F-111's systems, specifically the crew module "including" the cable, established *Boyle's* required approval of reasonably precise specifications. The circuit court held that "the Government had not previously approved specifications for the product with knowledge of the defect during the design phase." 985 F.2d at 84; 2a. The circuit court found that the cable was a non-critical item and that the Government "did not dictate the materials from which to make the cable". *Id.* at 85; 4a. Nevertheless, the circuit court ruled that "a contractor may satisfy the *Boyle* test after the design stage has been completed" and evaluated the *Boyle* test at the time the Government reordered the cable. The circuit court further stated:

> We hold that when the Government reordered the specific Babcock cable, with knowledge of its alleged design defect, the Government approved reasonably precise spec-

> ifications for that product such that the manufacturer qualifies for the military contractor defense for any defects in the design of that product.
>
> The Air Force exercised its discretion in deciding that changes in the maintenance manual along with the replacement of the existing cables were a sufficient response to the corrosion problem.

985 F.2d at 89; 13a-14a.

ARGUMENT

CERTIORARI SHOULD BE GRANTED TO CORRECT MISAPPLICATION OF THE *BOYLE* DEFENSE.

The Second Circuit decision misapplied, distorted and erroneously expanded this Court's holding in *Boyle* by granting respondent-manufacturers immunity, as a matter of law, for their design defects which caused this accident even though the defective design feature at issue was selected solely by the manufacturers without Government participation or approval.

Certiorari should also be granted because the Second Circuit improperly acted as a fact finder and did not even purport to determine that no reasonable jury could have found for petitioners on the facts presented, the mandatory standard for summary judgment required under *Boyle*.

Certiorari should also be granted because of the potentially far reaching precedential impact of the circuit court's erroneous decision. The circuit court's rationale would support displacement of state law under *Boyle* whenever a contractor could identify the Government's continued usage or tolerance of defectively designed equipment even though the Government neither selected nor approved the design feature at issue. Indeed, the court below principally relied on Fourth Circuit authority equating continued use after the design process with

Government approval.[7] The decision of the Second Circuit, if left to stand, will prematurely and unfairly terminate numerous meritorious cases against contractors brought for injuries caused by their defective military equipment.

A. *Boyle* Does Not Apply After The Design Process.

This Court in *Boyle v. United Technologies Corp.*, 487 U.S. 500 (1988) recognized that a Government contractor's immunity from state tort liability for design defects in military equipment is established only when a "significant conflict" existed between identifiable federal interests or policies and state law and, if so, when the contractor established each of three elements: 1) "the United States approved reasonably precise specifications"; 2) "the equipment conformed to those specifications";[8] and 3) the contractor warned the United States about the dangers known to the contractor but not to the United States. *Id.* at 512.

Boyle's requirements of Government approval of reasonably precise **specifications** and conformance of the equipment to those **specifications** restricts *Boyle's* preemption defense to the design stage. As this Court observed in *Boyle*, the first two elements "assure that the **design** feature in question was considered by a Government officer, and not merely by the contractor itself". *Id.* at 512 (emphasis added). The *Boyle* opinion is replete with language that limits the defense to the design stage; "selection of the appropriate design," *id.* at 511; "Government—ordered designs," *id.* at 512; "design feature in ques-

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7 *Dowd v. Textron, Inc.*, 792 F.2d 409, 412 (4th Cir. 1986), *cert. denied*, 487 U.S. 1233 (1988); *Ramey v. Martin-Baker Aircraft Co.*, 874 F.2d 946, 951 (4th Cir. 1989).

8 The circuit court's holding that *Boyle's* second element was satisfied "because when the Government reordered the cable, it received exactly what is sought—a cable . . . made of carbon steel coated by polyolefin," 985 F.2d at 89; 15a, is erroneous. Robert Campbell, one of the Government officials responsible for the 1982 replacement order, testified he was not aware of the cable's materials until after the subject accident (JA 1580-82).

tion," *id.*; "contractor participation in the design process," *id.* at 513. *Boyle's* limitation to the design process is further confirmed by the examples delineated in *Boyle* of when the defense would not apply; purchase of a helicopter from stock, purchase of an air conditioning unit, specifying the cooling capacity "but not the precise manner of construction", or purchase of any standard equipment. *Id.* at 509-10.

Boyle rejected the *Feres* doctrine (which prohibits all service related tort claims against the Government) as the defense's underpinning, and instead based the preemption defense on the discretionary function exception to Government liability embodied in the Federal Tort Claims Act. This Court held that "selection of the appropriate design for military equipment" is a discretionary function which

> [O]ften involves not merely engineering analysis but judgment as to the balancing of many technical, military, and even social considerations, including specifically the trade-off between greater safety and greater combat effectiveness.

Id. at 511.

The *Boyle* defense requires "informed decisions and considered choices" by the Government. *Trevino v. General Dynamics Corp.*, 865 F.2d 1474, 1481 (5th Cir.), *cert. denied*, 493 U.S. 935 (1989). The "approval" requirement "means that the discretion over significant details and all critical design choices will be exercised by the government". *Id.* It is only during the design process that safety decisions and other informed and considered technical, engineering and military choices and judgments by the Government are available and feasible.

The Government's decision at bar to order replacement cables in 1982 did not constitute approval of "reasonably precise specifications" under *Boyle*. Even assuming the Government's knowledge of the material design defects at issue when it ordered replacements—poor materials—that order was not

the considered, informed and balanced judgment and discretionary "critical design choice" by the Government required for contractor immunity under *Boyle*. Rather, replacement and reorder was the acceptance of the lesser of evils imposed on the Government by the contractor; shelving the fleet; grounding all or part of the fleet for a time consuming re-design, if even possible; or adopting a temporary fix by prematurely replacing all cables. *See Drake Towing Co., Inc. v. Meisner Marine Construction Co.*, 765 F.2d 1060, 1064 (11th Cir. 1985) ("For the government to show merely that some choice was involved in the decision-making process is insufficient to activate the discretionary function exception. . . . The balancing of policy considerations is a necessary prerequisite").

The *Boyle* defense is unavailable where, as here, the contractor "is itself ultimately responsible for the design defect." *Bynum v. FMC Corp.*, 770 F.2d 556, 574 (5th Cir. 1985). The contractor should not be entitled to *Boyle* immunity where it is solely responsible for a fleet-wide deficient design which is so far-reaching that the Government is left with little choice but to tolerate the defect.[9] Faced with the vastly restricted choices

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9 The record illustrates the Government's dilemma caused by the defective cable design; thus, in 1979, "severe corrosion" was observed on cables on F-111 aircraft in England, necessitating changing the cables with the result that the "supply of spare cables is exhausted", threatening production stoppage of an unrelated pyrotechnic change (JA 4059). After the subject accident, the Government discovered "extensive" corrosion problems on F-111 aircraft in England which "grounded a lot of aircraft" (JA 1519). Proposed changes to the cable and cover could not be effectuated. Equipment specialist Presley testified "we have a real constraint with the area in that center beam . . . [changes] would have made the cable diameter too big" (JA 3268). Maintenance procedures were eventually changed so that the Government was compelled to replace the entire cable whenever maintenance personnel discovered even a single "nick in the covering" (JA 3278). The Government was in "desperate need of cables" when they were reordered as an "emergency procurement" shortly after the accident (JA 912, 3271, 3274). Technical orders had to be issued requiring inspection of the cables for corrosion (JA 912).

presented by defectively designed equipment, the Government does not "approve" the design under *Boyle* by continuing its use while at the same time trying to alleviate the problems and consequences caused by a defective design it neither selected nor approved. The essence of the *Boyle* defense is the contractor claiming "the Government made me do it" (*In re Joint Eastern and Southern District New York Asbestos Litigation*, 897 F.2d 626, 632 (2d Cir. 1990)), not the Government asserting the "contractor made me do it".

B. The Absence Of "Significant Conflict" Between Federal Interests And Policies And State Law Renders *Boyle* Inapplicable.

Boyle preempts state tort law "only where" a "significant conflict" exists between identifiable federal policies or interests or specific objectives of federal law and state law (487 U.S. at 507-08). *Boyle* stated "conflict there must be" in order to displace state law tort. *Id.* at 508. In *Boyle*, "significant conflict" existed because the Government contract required the design of an aircraft so that its "escape hatch opened out" whereas state law was "precisely contrary". *Id.* at 503, 509.

At bar, when the Government purchased stock replacement cables from Babcock, it was aware of neither the cable's and cover's materials nor their underlying deficiencies. Because the Government did not order or require the specific features constituting the defective design, there is no "significant conflict" between federal and state law. Therefore, even assuming *Boyle* is applicable in the post-design stage, contractor immunity is unavailable in this case. The circuit court's holding that "[t]he imposition of liability under state law would constitute a significant conflict with the Government's decision to order replacement cables" is error, for *Boyle* rejected a blanket military procurement decision as providing the requisite conflict.

C. The Circuit Court Contravened *Boyle* By Assessing On Its Own Whether The Government Contractor Defense Had Been Established.

Boyle makes plain that when the Government contractor defense is available, a trial, not summary judgment, is necessary, unless, as a matter of law, "no reasonable jury could, under the properly formulated defense, have found for the [plaintiff] on the facts presented". *Id.* at 514.

In *Boyle*, a jury verdict for plaintiff was rendered. The appeals court reversed and directed entry of judgment for the contractor. With a complete record, the Supreme Court remanded *Boyle* because it was unclear from the Court of Appeals' opinion whether that court decided that "no reasonable jury could, under the properly formulated defense, have found for the [plaintiff] on the facts presented" or, whether, it was "assessing on its own whether the defense had been established". *Id.* at 514. *Boyle* held it would have been error for the appeals court to have assessed whether the defense had been established "since whether the facts established the conditions for the defense is a question for the jury". *Id.*

The Second Circuit not only purported to resolve and assess the *Boyle* defense, it did so in the face of material factual issues presented by the discovery record. The most crucial of these factual issues concerns the Government's knowledge when it ordered replacement cables in 1982, the decisive factor relied upon by the circuit court. The record establishes that the Government lacked knowledge that it was the cable's deficient composition materials that was the underlying cause of the cable problem. The replacement order, therefore, was not knowing, informed or the result of deliberative choice or judgment.

The Government's awareness of a "corrosion problem" and its understanding that cuts to the cable cover could lead to corrosion is knowledge of the consequences, not of the cause, and is not the material knowledge of the design defect at issue

required for its replacement order to reflect a reasoned and balanced evaluation to proceed with the cable in spite of its material defects. There is no proof in the record that appropriate Government decision makers knew, when replacement cables were ordered, that the cover's composition made it easily penetrable and that the cable's carbon steel was highly susceptible to corrosion, in violation of the Government's general design and performance criteria, and that these inherent design defects were the primary reasons behind cable failures, as petitioners and their expert allege. Indeed, the Government was misled into believing that the primary culprit for the corrosion problem was the clips that held the windshield fairing to the module, negating material knowledge by the Government.

Apart from the replacement order itself, respondents adduced no proof concerning the material knowledge of the Government officials who ordered the replacement and adduced no proof concerning any evaluative and balancing process and analysis undertaken by the Government relating to the composition materials, if any, when it ordered replacements.

The circuit court in affirming summary judgment in actuality utilized the *Feres* doctrine, rejected in *Boyle*, and relied on a blanket military procurement decision, which on this record is devoid of discretionary choice and informed judgment, to terminate petitioners' claims. On this record, the replacement of cables is similar to the examples given in *Boyle* of when immunity would not be available—the Government purchased stock replacement cables in 1982 without selecting the composition materials and without knowledge or approval of "reasonably precise specifications".

CONCLUSION

Certiorari should be granted to review the decision below.

Dated: May 3, 1993

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UNITED STATES COURT OF APPEALS

FOR THE SECOND CIRCUIT

No. 538—August Term 1992

(Argued: December 9, 1992 Decided: February 4, 1993)

Docket No. 92-7703

SCOTT E. LEWIS and VICTORIA LEWIS,

Plaintiffs-Appellants,

—v.—

BABCOCK INDUSTRIES, INC., MCDONNELL DOUGLAS CORP., and GENERAL DYNAMICS CORPORATION,

Defendants-Appellees.

Before:

MESKILL, *Chief Judge*,
OAKES and NEWMAN, *Circuit Judges*.

Appeal from the June 10, 1992, judgment of the United States District Court for the Southern District of New York (John M. Cannella, Judge) dismissing plaintiffs'

product liability complaint on a motion for summary judgment, upholding a military contractor defense.

Affirmed.

DAVID BEEKMAN, New York, N.Y. (Milton G. Sincoff, Daniel M. Kolko, Kreindler & Kreindler, New York, N.Y., on the brief), *for plaintiffs-appellants*.

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JON O. NEWMAN, *Circuit Judge*:

This appeal concerns the military contractor defense, *see Boyle v. United Technologies Corp.*, 487 U.S. 500 (1988). The precise issue is whether the defense protects a contractor from whom the Government purchased replacement parts with knowledge of a design defect even if the Government had not previously approved specifications for the product with knowledge of the defect during the design phase. This question arises on an appeal by Scott E. Lewis and Victoria Lewis from the June 10,

1992, judgment of the District Court for the Southern District of New York (John M. Cannella, Judge) dismissing their complaint on a motion for summary judgment. We uphold the military contractor defense under the circumstances of this case and therefore affirm.

Background

On February 23, 1987, Scott Lewis was flying a United States Air Force F-111-F jet fighter over England. When the plane malfunctioned, he initiated ejection of the self-contained crew module. The crew module is designed so that once the pilot initiates ejection, all subsequent operations until landing occur automatically. After the module separates from the aircraft, a parachute system deploys, and large bags on the bottom of the module cushion the landing. In this case, however, the forward repositioning cable, one of two cables that connect the parachute to the module, severed, causing the module to land at an incorrect angle without adequate cushioning. Lewis sustained spinal injuries.

The Air Force concluded, after a post-accident investigation, that the breaks in the forward repositioning cable were caused by corrosion. The cable was made of high carbon steel, which is corrosive unless protected. The cable was protected by a polyolefin coating, which adequately protects the steel as long as the coating is not cut. During normal operations, the cable rests under a light metal cover in a channel in the center of the windshield. General Dynamics Corp. designed and manufactured the aircraft. It subcontracted for the design and manufacture of the crew module with McDonnell Douglas Corp., which in turn subcontracted with Babcock Industries, Inc. for the parachute cables.

During the design phase, the entire crew module was designated a "critical item" by the Air Force. Items were designated critical by virtue of their unusual complexity, developmental nature, extreme cost, or relevance to safety. Because of their importance, the Air Force subjected the design and development of "critical items" to extensive review. The forward repositioning cable itself, however, was a "non-critical item." The Government did not dictate the materials from which to make the cable, but only its required dimensions and strength. Early in the design process, the Government performed an extensive review of the entire crew module, as a critical item, during the so-called First Article Configuration Inspection ("the FACI") and during tests of the module. The parties dispute the level of attention paid by the Government to the forward repositioning cable, a non-critical item, during the FACI and whether the Government was aware of the cable's composition and susceptibility to corrosion at that time.

After General Dynamics delivered the F-111s to the Air Force, the Air Force made an initial redesign of the windshield of the F-111 for reasons not relevant to the pending appeal. The Air Force selected a different contractor for this redesign. The redesigned windshield was connected to the aircraft with clips located in the same channel as the forward repositioning cable. The Air Force eventually noticed corrosion of the cables in the aircraft with the new windshield design. After an investigation completed in 1980, the Air Force determined that the clips from the modified windshield were cutting the cable's protective coating, thus allowing moisture to reach the carbon steel cable and cause corrosion.

The Air Force decided to replace the forward repositioning cables on all F-111s. The cable in the aircraft

involved in Lewis's accident was replaced on January 21, 1983, with a cable purchased from Babcock. The Air Force also changed its maintenance manual to warn its personnel to be careful not to cut the cable's coating during maintenance operations. The Air Force did not change the windshield design, nor did it change the cable composition from that of the original Babcock cable. At least by this time, the Air Force was aware of the cable's susceptibility to corrosion if its coating was cut. After the crash of Lewis's plane, the Air Force performed more tests. Based on these tests, the Air Force decided to continue use of the Babcock cable and to make a second redesign of the windshield to avoid its cutting of the cable's coating.

Lewis ejected from a plane equipped with a replaced cable and a windshield constructed according to the first redesign. The cable broke in two places, only one of which was in the portion of the cable resting in the channel where the windshield clips were located. The parties dispute whether the other break was caused by corrosion or whether it was the result of the added stress created as the portion of the cable originally located in the channel was breaking. Lewis and his wife, claiming derivatively, sued General Dynamics, McDonnell Douglas, and Babcock (collectively "appellees") alleging negligence in their design of the cable because the high carbon steel chosen was susceptible to corrosion from moisture and the polyolefin protective coating was easily cut, thereby limiting its effectiveness. Their complaint also contained claims based on theories of strict liability and breach of warranty. Judge Cannella granted appellees' motion for summary judgment based on the military contractor defense of *Boyle*.

Discussion

I. The military contractor defense

In *Boyle*, the Supreme Court held that the federal common law provides certain military contractors with a defense against suits based on state tort law. The defense is applicable only to those contractors for whom the duties of care imposed by state tort law conflict with the duties imposed by their federal contract. Under this defense, conflicting state law is displaced "when (1) the United States approved reasonably precise specifications; (2) the equipment conformed to those specifications; and (3) the supplier warned the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States." *Boyle*, 487 U.S. at 512. As we explained in our first extended discussion of *Boyle*:

> The first element ensures that the design specification at issue actually was considered by a government official—or, in other words, that a government official had made the type of policy decision considered a discretionary function under the [Federal Tort Claims Act]. The second element ensures that the supplier actually acted upon the Government's discretion. The final element encourages the contractor to provide all information at its disposal to the government official and in so doing facilitates a fully informed decision by the government official.

In re Joint Eastern and Southern District New York Asbestos Litigation, 897 F.2d 626, 629 (2d Cir. 1990) ("*Grispo*").

As to the first requirement, the District Court found that during the FACI, the Government examined and approved every component of the module, including the cable, and that the Government conducted extensive testing of the crew escape module, including the cable. The District Court found especially persuasive the fact that the Air Force continued to use the cable after it found out that it was susceptible to corrosion when it was cut. In effect, the District Court held that approval may be established by the Government's continued use of a product after it learns of the defect. The District Court found that appellees met *Boyle*'s second requirement because the Government had inspected and accepted the aircraft when it was first delivered and had also inspected and accepted the replacement cables produced by Babcock. Finally, the Court held that appellees met *Boyle*'s third requirement because the Air Force, from its experience with the aircraft, had greater knowledge than appellees of the corrosion problem.

II. Does *Boyle* have prerequisites?

Lewis urges us to adopt an interpretation of *Boyle* under which the three part test outlined above is not applied unless two prerequisites are established: a significant conflict between the requirements under the federal contract and state tort law, and the Government's exercise of its discretion in accepting a safety risk. In rejecting this argument, the District Court concluded that it makes more sense to consider whether a significant conflict exists in determining the first element of the *Boyle* test, approval of reasonably precise specifications, rather than as a prerequisite, because "[b]y satisfying this element, the contractor establishes that a conflict exists between state law which imposes liability and the duty imposed by the Gov-

ernment contract." In considering the first element, the District Court also examined whether the Government exercised discretion or merely "rubber stamped" the design.

Although, at the end of the analysis, federal common law provides the contractor with a defense only if there is both (a) a conflict between the requirements of state tort law and those of the Government contract and (b) an exercise of Government discretion in considering the design feature in question, we agree with the District Court's approach that these inquiries are part of the *Boyle* test and not prerequisites to it. The purpose of the first part of the test, approval of reasonably precise specifications, is to determine whether a conflict with state law exists at all. As we indicated in *Grispo*, a federally imposed contract requirement displaces only a parallel state law requirement. 897 F.2d at 630. If the Government did not approve reasonably precise specifications for the design feature in question, there is no conflict with state law.[1] On the other hand, if the Government did approve such specifications, conflicting state tort law is preempted. Thus, answering the question whether the Government approved reasonably precise specifications for the design feature in question necessarily answers the question whether the federal contract conflicts with state law.

We also disagree with Lewis's proposition that the Government's exercise of discretion in accepting a safety risk

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1 This proposition was illustrated by the Supreme Court in *Boyle* when it noted that there would be no conflict between a federal contract for the purchase of an air conditioner that specified only the cooling capacity, leaving the precise design to the contractor, and state law requiring a certain safety feature. *See Boyle*, 487 U.S. at 509. Since a manufacturer could comply with both the federal contract and state tort law, the Government had not approved reasonably precise specifications for the safety feature in question.

should be considered a prerequisite to applying the three part *Boyle* test. In its search for a limiting principle for the military contractor defense, the Supreme Court rejected the *Feres* doctrine, *see Feres v. United States*, 340 U.S. 135 (1950), which states that the Federal Tort Claims Act ("the FTCA") does not cover injuries to military personnel during military service, and instead chose the discretionary function exception to the FTCA, *see* 28 U.S.C. § 2680(a) (1988). *See Boyle*, 487 U.S. at 509-12. The Supreme Court indicated that the first two parts of the *Boyle* test implement this limitation by "assur[ing] that the suit is within the area where the policy of the 'discretionary function' would be frustrated—*i.e.*, they assure that the design feature in question was considered by a Government officer, and not merely by the contractor itself." *Id.* at 512. Thus, in determining whether the Government approved reasonably precise specifications, a District Court necessarily inquires into whether the Government adequately exercised its discretion and "thereby limit[ed] the contractor's ability to accommodate safety in a different fashion." *Grispo*, 897 F.2d at 632. The purpose of this inquiry is to exclude from the defense those cases where the Government merely "rubber stamps" a design, *see Trevino v. General Dynamics Corp.*, 865 F.2d 1474, 1480, 1486 (5th Cir.), *cert. denied*, 493 U.S. 935 (1989), or where the Government merely orders a product from stock without a "significant interest" in the alleged design defect, *see Boyle*, 487 U.S. at 509.

III. At what point in time should the *Boyle* test be applied?

The parties' dispute turns in large part on the time when the *Boyle* test is to be applied. Lewis asserts that a contractor can meet the requirements of *Boyle*, if at all, only

during the design phase and argues that with reference to that time, summary judgment is not appropriate in this case. Appellees respond that they can satisfy the requirements of *Boyle* through Government approval that occurs at any time prior to the accident. We understand the District Court's opinion to adopt the appellees' approach to the time frame. Judge Cannella found the first element satisfied by events that happened at the design stage and by the Air Force's responses to problems of which it learned during its experience with the F-111 after the aircraft was delivered. He found the second element satisfied based on the Government's acceptance, after review, of the aircraft and the replacement cables. He found the third element established because the Air Force knew of the cable's susceptibility to corrosion long before the accident occurred based on its analysis of the corrosion problem that led it to replace all the cables in the early 1980s. At least for the third requirement, the District Court did not determine whether appellees, during the design phase, adequately informed the Government of problems in the cable's design of which their knowledge was superior to the Government's. The Court made this determination only at the post-design stage.

The Fourth Circuit has twice dealt with situations presenting the question of when the *Boyle* test should be applied. In the first case, *Dowd v. Textron, Inc.*, 792 F.2d 409 (4th Cir. 1986), *cert. denied*, 487 U.S. 1233 (1988), two servicemen were killed when the helicopter they were flying crashed. Their widows brought suit against the manufacturer. They alleged that the rotor system was defectively designed permitting, under certain circumstances, the rotor to sever the mast to which it was attached. *See id.* at 410. The rotor system had been used in previous versions of the helicopter. *See id.* at 410-11.

At least forty-six incidents had occurred prior to the accident at issue in which the rotor severed the mast of helicopters using the same rotor system. The Army studied the problem, recommended educating the pilots about the risk, and decided to study the problem further. The manufacturer also performed several studies and recommended three variations to the Government. Although the Army chose to modify the rotor system on previous versions of the helicopter, it decided to continue to use the original system on a new version of the helicopter then being designed. This new version was the one involved in the crash. *See id.* at 411.

The Court rejected the plaintiff's argument that since the manufacturer originally designed the rotor system without Army participation, the Government had not approved reasonably precise specifications. It reasoned that "[t]he length and breadth of the Army's experience with the 540 rotor system—*and its decision to continue using it*—amply establish government approval of the alleged design defects." *Id.* at 412 (emphasis added). The Army required the manufacturer to use the original rotor system in the new version of the helicopter, and the manufacturer could not modify the design without Government approval. *See id.* The Court was also concerned that if the manufacturer's negligence at the initial design stage created permanent future liability, the manufacturer's incentive to propose safety modifications for its product would be diminished. *See id.*

In the second case, *Ramey v. Martin-Baker Aircraft Co.*, 874 F.2d 946 (4th Cir. 1989), the ejection seat of an F-18 fighter aircraft triggered during its removal and injured a mechanic. The mechanic, alleging that the manufacturer defectively designed the component and failed to apprise the Navy of the danger the seat posed to mechanics,

brought suit against the manufacturer. Adopting the language in *Dowd* quoted above, the Court found both *Boyle*'s first prong and third prong met because the "Navy was well aware of the seat's harmful propensities" before the accident occurred through its experience with the aircraft. *Id.* at 951. This awareness was evidenced by internal documents indicating the Navy's concern that the method of removing the ejection seat, prescribed in the maintenance manuals, was deficient. *See id.*[2] The Court found that the Navy's continued use of the component after it had experience with the potential design problems constituted approval of reasonably precise specifications, *see id.* at 950, and that the manufacturer could not have informed the Navy of anything the Navy did not already know, *see id.* at 951.

Our case presents a factual scenario that is less compelling for the application of the military contractor defense at the post-design phase than *Dowd*, but more compelling than *Ramey*. In *Dowd*, the Army was in the process of ordering a new helicopter that would modify certain aspects of the previous version of the helicopter. The Army's experience with the rotor system, a design that it had not originally approved, came from its experience with the prior versions of the helicopter. In addition, to aid the Army's evaluation of the alleged design defect, the manufacturer presented alternative designs. In effect, the decision in *Dowd* to continue use of the rotor system was made at the design stage of the new version of the helicopter and was informed by alternative designs. In our case, by contrast, the Air Force was evaluating an

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2 The Court alternatively ruled that the Navy's participation in the design amounted "to more than a rubber stamping," and thus, was sufficient to qualify as approval of reasonably precise specifications. *Id.* at 950.

alleged design defect in an aircraft that had already been produced, and alternative designs for the cable were not evaluated until after Lewis's accident.

In *Ramey*, when the accident occurred, the Navy was continuing to use the deficient maintenance manual while apparently in the process of deciding how to deal with the risk created by the alleged design defect. *See* 874 F.2d at 951 n.9. In our case, on the other hand, the Government had completed its investigation, and based on its conclusions, ordered the same part to use as a replacement for the corroded cables. In essence, the Government decided that changes in the maintenance manual and the replacement of existing cables were an adequate response to the corrosion problem.

Consideration of these Fourth Circuit cases leads us to agree with the District Court and appellees that a contractor may satisfy the *Boyle* test after the design stage has been completed, at least in the situation presented here. Although the Government was not in the process of designing a new aircraft as in *Dowd*, the Government reordered the same cable to replace existing ones. It was one of these replacement cables that failed in the accident at issue. This reorder occurred after the Government had completed its investigation into the problem and while it knew that the Babcock cable was susceptible to corrosion if the protective coating was cut. We hold that when the Government reordered the specific Babcock cable, with knowledge of its alleged design defect, the Government approved reasonably precise specifications for that product such that the manufacturer qualifies for the military contractor defense for any defects in the design of that product.[3]

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3 We do not decide whether the contractor can invoke the military contractor defense where the Government merely tolerates a defect through

The Air Force exercised its discretion in deciding that changes in the maintenance manual along with replacement of the existing cables were a sufficient response to the corrosion problem. After Lewis's accident, faced with alternative designs for the cable, the Air Force chose to redesign the windshield a second time and to continue use of the Babcock cable. Whether or not these decisions were ill advised, or should have been made earlier, it is not our role to second-guess the Air Force's judgment. And since the Government specifically requested the cable that failed despite awareness of its alleged design defect, thus precluding characterization of the cable as a stock item that happens to have a design defect, we also cannot second-guess the contractor's decision regarding the materials to be used for the cable. Based on the reorder, the contractor can claim: " 'The Government made me do it.' " *Grispo*, 897 F.2d at 632. The imposition of liability under state law would constitute a significant conflict with the Government's decision to order replacement cables. Furthermore, if liability were imposed on the contractor based on its previous actions, the contractor would seek to raise the price of the replacement cables to cover its anticipated liability from the damage that might be caused by their failure. Such reaction would frustrate the policy underlying the FTCA's discretionary function exception by placing the cost of the Government's discretionary decisions on the Government itself when it contracts for a product. *See Boyle*, 487 U.S. at 511-12.

The remaining two parts of *Boyle* were also appropriately determined in appellees' favor on motion for sum-

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continued use of a product in the face of knowledge of a design defect acquired after the design stage ended. The District Court may have relied primarily on the Government's continued use of the cables, though it did refer to replacement.

mary judgment. Appellees have met the second part of the *Boyle* test, conformity with reasonably precise specifications, because when the Government reordered the cable, it received exactly what it sought—a cable that had certain dimension and strength characteristics, made of carbon steel coated by polyolefin. The Government also approved the replacement cable shipments it received.

Moreover, since we are evaluating the *Boyle* test at the time the Government reordered the cable, it is clear that the third requirement is also met. There is no requirement that appellees inform the Air Force of dangers already known to the Air Force. *See Boyle*, 487 U.S. at 512. Because of its experience with the aircraft, the Air Force had greater knowledge of the problem than appellees had. *See Ramey*, 874 F.2d at 951; *Harduvel v. General Dynamics Corp.*, 878 F.2d 1311, 1321-22 (11th Cir. 1989), *cert. denied*, 494 U.S. 1030 (1990). As early as 1980, the Government determined that the cable materials were appropriate as long as care was taken not to cut the coating. Lewis argues that although the Government was aware of a problem, they were misled by appellees that the cause of the problem was the windshield redesign rather than the easy penetrability of the coating. We find Lewis's distinction unpersuasive. The Government knew that the coating could be cut in other ways; in its 1980 report, the Government characterized the windshield clips as the "primary cause of damage." Joint Appendix at 867. This conclusion also renders the parties' dispute over the cause of the other break irrelevant to our disposition. Even if the other break were caused by corrosion, the Government's decision to reorder the cable in light of its knowledge that the coating was susceptible to cutting in several ways also

serves to immunize appellees for accidents caused by cuts from sources other than the initial windshield redesign.[4]

Conclusion

Because the District Court correctly granted appellees' motion for summary judgment under the military contractor defense based on the Government's actions and knowledge in the post-design stage, we affirm.

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4 We need not decide whether the initial windshield redesign was, as a matter of law, an intervening cause of the cable's failure such that appellees would be relieved of liability.

Furthermore, Lewis has not presented a claim or a sufficient factual basis supporting a claim that the defense should not apply because the appellees' actions at the design stage so constricted the Government's discretion when it reordered the cable that the Government was precluded from making the same decision (to reject or demand modification) that it would have made if presented with the issue at the design stage

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

88 Civ. 1120 (JMC)

Dated June 8, 1992

SCOTT E. LEWIS and VICTORIA LEWIS,

Plaintiffs,

—against—

BABCOCK INDUSTRIES, INC., McDONNELL DOUGLAS CORP. and GENERAL DYNAMICS CORP.,

Defendants.

MEMORANDUM AND ORDER

CANNELLA, D.J.:

Defendants' motions for summary judgment are granted. Fed. R. Civ. P. 56.

BACKGROUND

This personal injury action arises out of an emergency ejection from a United States Air Force F-111 aircraft. Captain Scott Lewis was the pilot of the F-111 aircraft, which was based out of the United States Air Force Wing at the Royal Air Force Base in Lakenheath, England. On February 23, 1987, during a landing approach, the aircraft malfunctioned and rolled to one side. The crew members, including Lewis, ejected from the aircraft in the self-contained crew escape module.

After the escape capsule separated from the aircraft, recovery parachutes activated to bring the escape module safely to the ground. The recovery parachute is attached to the capsule by the forward repositioning cable and the aft repositioning cable. On descent, the forward repositioning cable broke caus-

ing the crew members to sustain injury upon landing. The forward repositioning cable severed due to corrosion.

The F-111 aircraft is a highly sophisticated fighter bomber designed to operate at altitudes ranging from 200 to 60,000 feet, day or night, in all types of weather, and at speeds in excess of twice the speed of sound. The aircraft was developed in the early 1960's. In September 1961, the United States Department of Defense issued a Request for Proposals ["RFP"], requesting bidders to compete for the construction contract of the aircraft. In December 1962, the Air Force awarded the contract to produce the F-111 fighter jet to General Dynamics Corporation ["General Dynamics"]. General Dynamics contracted with McDonnell Douglas Corporation ["McDonnell Douglas"] to design the crew escape module. Babcock Industries, Inc. ["Babcock"], through its subsidiary American Chain & Cable Company, manufactured the repositioning cables for the F-111 aircraft.

The Department of Defense created the Air Force F-111 Systems Program Office [the "SPO"] as the federal authority responsible for approving the contracting for the design and development of the F-111 aircraft. During the first stage of development, the government and General Dynamics engaged in continual discussions concerning the performance specifications of the aircraft. The design of the F-111, as requested in the RFP and as agreed upon in the final contract with General Dynamics, required the implementation of an ejectable crew module. This escape system was unique because it differed from the conventional ejection seat system.

After the parties agreed upon the performance specifications, the design process commenced. While the Air Force was involved in all phases of design development, it decided to examine carefully the development of certain items given their unusual complexity, developmental nature, extreme cost or safety concerns. These parts of the aircraft were designated as "critical." The government identified the crew escape module as a critical item.

General Dynamics and McDonnell Douglas submitted specifications concerning the design of the crew escape module for

government review and approval. After making extensive and detailed comments, government engineers directed that certain changes be made before granting approval. At least three of the government's SPO engineers were assigned the task of overseeing and directing the design of the escape module.

The performance and design specifications required Babcock to manufacture a cable that was 110 inches in length, .330 inches in maximum diameter, and capable of withstanding 12,500 pounds of maximum tensile load. Babcock constructed such a cable out of high carbon steel and covered it with a polyethylene sheath.

In addition to the numerous informal and formal government design review sessions, the government performed a review called a First Article Configuration Inspection ["FACI"], which is an extensive government engineering review and evaluation of every detail of the aircraft's module. During this inspection, every unit or piece of equipment was examined. After the FACIs were completed, none of the contractors could change any item of the design without express government approval.

The government also conducted extensive testing of the crew escape module. The tests evaluated all aspects of the escape crew module's operation, including the parachute repositioning cables. After the testing was completed, the SPO determined that the product was "qualified," which indicated that the module met the government's specification requirements and was acceptable.

Government engineers visited General Dynamics' and McDonnell Douglas' plants during the actual production of the aircraft to ensure quality control during manufacture. Government inspectors also inspected the manufacture of the forward repositioning cables at Babcock's plant. The F-111 aircraft involved in this accident was delivered to the Air Force in April 1972.

In 1972, as a result of problems with birds striking the windshields of the aircraft, the Air Force developed a new windshield for the F-111. The Air Force awarded a contract to Pittsburgh Plate Glass Company ["PPG"] to implement a design modification, which increased the thickness of the wind-

shield. The redesign forced PPG to change the F-111 windshield beam cover assembly or fairing. Eventually, all F-111 aircraft were modified with the new PPG windshields and beam covers.

In or about 1980, F-111 maintenance personnel discovered corrosion on the forward repositioning cables. The Air Force reviewed the design of the cable and concluded that the corrosion was due to the redesign of the fairing. The Air Force found that the polyethylene cover was being cut by spring clips that held the center beam fairing. The PPG fairing differed from the original McDonnell Douglas design, in which the spring clips were prevented from pushing into the fairing.

After conducting its investigation, the Air Force replaced the forward repositioning cables on all F-111 aircraft. The replacement forward repositioning cables were purchased from Babcock and were the same design and construction as the original cables. The Air Force also changed the F-111 maintenance manual to caution Air Force personnel to avoid cutting the cable cover during maintenance activities involving the windshield fairing. Later, the Air Force treated the cables with a corrosion preventing compound. The Air Force also considered, but decided against, redesigning the PPG fairing to correct its cable damaging tendencies.

The Air Force conducted another investigation following the mishap which occurred on February 23, 1987. The Air Force determined that the forward repositioning cable broke due to corrosion caused by moisture penetrating the cable through cuts in its protective covering. The Air Force further found that the PPG fairings were responsible for cutting the protective covering of the cable. The Air Force decided to redesign the windshield beam cover assembly and reintroduced the original design feature which prevent the clips from cutting the cable.

Plaintiffs assert that the F-111 aircraft was defectively designed because the forward repositioning cable was constructed out of material susceptible to corrosion. Defendants General Dynamics, McDonnell Douglas and Babcock now move for summary judgment under Rule 56 of the Federal Rules of Civil Procedure.

DISCUSSION

I. *Standards for the Application of Summary Judgment*

Rule 56(c) of the Federal Rules of Civil Procedure provides that a district court shall grant a motion for summary judgment if it determines that "there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). Thus, summary judgment is proper if " 'viewing the record in the light most favorable to the nonmoving party, the evidence offered demonstrates that there is no genuine issue of fact and that the moving party is entitled to judgment as a matter of law.' " Pension Benefit Guar. Corp. v. LTV Corp., 875 F.2d 1008, 1015 (2d Cir. 1989) (quoting Cinema North Corp. v. Plaza at Latham Assocs., 867 F.2d 135, 138 (2d Cir. 1989)), *rev'd on other grounds*, 110 S. Ct. 2668 (1990). In considering a motion for summary judgment, the court must "resolve all ambiguities and draw all reasonable inferences in favor of the party against whom summary judgment is sought." Heyman v. Commerce & Indus. Inc. Co., 524 F.2d 1217, 1220 (2d Cir. 1975).

The party moving for summary judgment bears the initial burden of demonstrating the absence of any genuine issue of material fact. *See* Adickes v. S.H. Kress & Co., 398 U.S. 144, 157 (1970). The Second Circuit has explained that "the evidentiary burdens that the respective parties will bear at trial guide district courts in their determination of summary judgment motions." Brady v. Town of Colchester, 863 F.2d 204, 211 (2d Cir. 1988). Thus, in cases where the moving party seeks summary judgment on an issue upon which the nonmoving party bears the burden of proof at trial, the moving party's burden may be met by demonstrating that there is a lack of evidence to support the nonmoving party's claim. *See* Celotex Corp. v. Catrett, 477 U.S. 317, 325 (1986). The nonmoving party must then set forth "specific facts showing that there is a genuine issue for trial." Fed. R. Civ. P. 56(e). If the nonmoving party is unable to establish the existence of an element essential to its case on which it bears the burden of proof at trial, a genuine issue of material fact cannot exist "since a com-

plete failure of proof concerning an essential element of the nonmoving party's case necessarily renders all other facts immaterial." *Celotex Corp.*, 477 U.S. at 322-23.

Conversely, "where the movant moves with respect to an aspect of the case upon which it will bear the burden of proof, it must establish that there is no genuine issue as to every element of that aspect of the case." Deniston v. Boeing Co. (HGM), 87 Civ. 1205, slip op. at 4 (N.D.N.Y. Mar. 28, 1990). Thus, a defendant moving for summary judgment based on an affirmative defense must establish that there is no genuine issue of material fact as to every element of the defense. *See id.* Once the moving party meets its burden, the onus shifts to the nonmoving party to "provide 'concrete particulars' showing that a trial is needed." R.G. Group, Inc. v. Horn & Hardart Co., 751 F.2d 69, 77 (2d Cir. 1984) (quoting SEC v. Research Automation Corp., 585 F.2d 31, 33 (2d Cir. 1978)).

General Dynamics, McDonnell Douglas, and Babcock each argue that summary judgment is proper based on the government contractor defense. In the alternative, General Dynamics argues that it did not design, manufacture or sell the allegedly defective forward repositioning cable. Babcock and McDonnell Douglas argue that in the alternative, the cable corroded due to the change in the design of the windshield center beam fairing.

II. *The Government Contractor Defense*

In Boyle v. United Technologies Corp., 487 U.S. 500 (1987), the Supreme Court recognized the government contractor defense. In *Boyle*, a Marine helicopter co-pilot was killed when his helicopter crashed off the coast of Virginia Beach, during a training exercise. Boyle survived the crash, but was unable to escape from the helicopter due to a defectively designed escape hatch. The escape hatch opened outward instead of inward and, as a result, water pressure prevented Boyle from opening the hatch causing him to drown. In *Boyle*, defendants asserted the government contractor defense to avoid liability under state law.

The Supreme Court first found that state law could be displaced where "uniquely federal interests" are at stake. The

Court held that the procurement of military equipment is an interest that is "uniquely federal." This, however, is only one condition necessary for the displacement of state law. *See Boyle*, 487 U.S. at 507. The Court explained that "[d]isplacement will occur only where . . . a 'significant conflict' exists between an identifiable 'federal policy or interest and the [operation] of state law', or the application of state law would 'frustrate specific objectives' of federal legislation." *Id.* (citations omitted). The Court summarized the test for displacing state law which imposed liability for design defects in military equipment as follows:

> (1) the United States approved reasonably precise specifications;
>
> (2) the equipment conformed to those specifications; and
>
> (3) the supplier warned the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States.

Id. at 512.

In response to defendants' contention that all three requirements of the government contractor defense are established as a matter of law, plaintiffs raise two preliminary arguments. First, plaintiffs contend that summary judgment is inappropriate when the government contractor defense is asserted. This argument is without merit. Several courts have held that the defense may be established as a matter of law in the context of a motion for summary judgment. *See, e.g.*, Kleeman v. McDonnell Douglas Corp., 890 F.2d 698 (4th Cir. 1989), *cert. denied*, 110 S. Ct. 2219 (1990); Smith v. Xerox Corp., 866 F.2d 135 (5th Cir. 1989); Ramey v. Martin-Baker Aircraft Co., 874 F.2d 946 (4th Cir. 1986); Niemann v. McDonnell Douglas Corp., 721 F. Supp. 1019 (S.D. Ill. 1989); Zink v. ITT, 680 F. Supp. 1331 (S.D.N.Y. 1988).

Plaintiffs next argue that under *Boyle* the Court must find that a "significant conflict" exists between a federal policy and state law *before* considering the three part *Boyle* test. In *Boyle*, the Supreme Court made clear that to displace state tort law, a

significant conflict must exist between state tort law and federal policy. *See Boyle*, 487 U.S. at 507, 512. The first requirement of the government contractor defense, however, assures that state law is pre-empted only where a significant conflict exists between federal policy and state law. *See id.* at 511-12.

The first element of *Boyle* requires the supplier to show that the government approved reasonably precise specifications. *See id.* at 512. By satisfying this element, the contractor establishes that a conflict exists between state law which imposes liability and the duty imposed by the Government contract. *See id.* at 509, 511. Thus, it makes the most sense to consider whether a significant conflict is lacking in connection with the first element of *Boyle*, rather than as a prerequisite to the *Boyle* test. This is the procedure followed by most courts, in cases where plaintiffs claimed that a significant conflict was absent. *See* Stout v. Borg-Warner Corp., 933 F.2d 331, 335 (5th Cir.), *cert. denied*, 112 U.S. 584 (1991); Maguire v. Hughes Aircraft Corp., 912 F.2d 67, 70 (3d Cir. 1990); *In re* Aircraft Crash Litig., 752 F. Supp. 1326, 1336 (S.D. Ohio 1990), *aff'd sub nom.*, Darling v. Boeing, 935 F.2d 269 (6th Cir. 1991).

Turning to the specific elements of the military contractor defense, the first element may be established, "if either the government itself selected or proposed the allegedly defective design feature or if those design features were approved by the government following active consideration, which may be demonstrated by a 'back and forth' between the government and the contractor." *Deniston*, slip op. at 14; *accord Stout*, 933 F.2d at 334-35. Similarly, government performance specifications are sufficient to establish approval, provided that the government subsequently reviewed and approved the design chosen by the private contractor. *See* Harduvel v. General Dynamics Corp., 878 F.2d 1311, 1320 (11th Cir. 1989), *cert. denied*, 494 U.S. 1030 (1990); Trevino v. General Dynamics Corp., 865 F.2d 1474, 1486 (5th Cir.), *cert. denied*, 493 U.S. 935 (1989). Approval based on substantive review and evaluation of the design features prepared by the contractor is distinguishable from "rubber stamping" in which the government merely accepts the contractor's design choice. Rubber stamp-

ing does not constitute approval because the contractor, not the government, must exercise discretion over the design feature. *See Stout*, 933 F.2d at 336.

To establish the first element of the government contractor defense, defendants rely upon the detailed and thorough process of government review, modification, and testing that took place during each stage of the design process. Defendants argue that the high level of government involvement establishes that the Air Force approved the material composition of the cable. Plaintiffs do not dispute the active role of the Air Force in overseeing the design of the F-111 aircraft, including its comprehensive review of the detailed design drawings for the escape module and the forward repositioning cable. Plaintiffs, however, assert that despite this evidence, there is no indication that the government specifically required defendants to supply a cable constructed of carbon steel and polyethylene. Thus, plaintiffs argue that defendants could have constructed the cable out of a different material and they still would have been able to comply with the contract specifications.

Plaintiffs' argument ignores that *Boyle's* first requirement may be satisfied even where the government did not dictate the allegedly defective design feature, provided that the government approved the feature after substantive review. *See Stout*, 933 F.2d at 334-35. Allowing government contractors to establish government approval, even where the contractor played a role in preparing the design, promotes cooperation between private contractors and the military. *See* Koutsoubos v. Boeing Vertol, Div. of Boeing Co., 755 F.2d 352, 355 (3d Cir.), *cert. denied*, 474 U.S. 821 (1985); *In re* Agent Orange Prod. Liab. Litig., 534 F. Supp. 1046, 1056 (E.D.N.Y. 1982). The Fifth Circuit explained that "[c]ontractor participation in design is essential to the development of a military force that is competitively equipped. . . . [I]f military technology is to incorporate the advances of science, it needs the uninhibited assistance of private contractors." Tozer v. LTV Corp. 792 F.2d 403, 407 (4th Cir. 1986), *cert. denied*, 487 U.S. 122 (1988). Here, the government's complete control over the design pro-

cess indicates that the government approved the construction of the cable using carbon steel and polyethylene.

Even more significant than this evidence of government approval is the government's continued use of the cable after learning that it was susceptible to corrosion. Approval may also be established by the government's continued use of the allegedly defective product, after it is made aware of the defect. *See, e.g., Ramey*, 874 F.2d at 950. For example, in Dowd v. Textron, Inc., 792 F.2d 409 (4th Cir. 1986), *cert. denied*, 487 U.S. 1233 (1988), plaintiffs alleged that Bell Helicopter Textron ["Bell"] negligently designed a Navy helicopter. The helicopter crashed due to a problem known as "mast bumping" in which the hub of the motor struck the mast and severed it. Bell Helicopter had designed the rotor system allegedly responsible for the accident. Both Bell and the Army were aware of the problem of mast bumping. The Army had investigated incidents of mast bumping which had occurred years before the accident, prepared reports on the problem and discussed the problem with Bell. Despite the risk of mast bumping, the Army rejected Bell's proposed modifications, finding them too costly or burdensome. *See Dowd*, 792 F.2d at 411.

In *Dowd*, the Fourth Circuit rejected plaintiff's contention that since Bell Helicopter had originally designed the rotor system without the Army's participation, the Army did not approve reasonably precise specifications. Based on the Army's familiarity with the problem of mast bumping and its decision to continue using the original rotor system, the court found that the government had approved the alleged design defect. *See id.* at 412. Thus, the Fourth Circuit held that "the length and breadth of the Army's experience with the 540 rotor system—and its decision to continue using it—amply establish government approval of the alleged design defects." *Id.*

In this case, the Air Force discovered the corrosion problem in or about 1980, when it determined that the modified PPG fairing was causing cuts in the cable's cover. Pat Santucci, an SPO engineer who worked with the escape crew module, exam-

ined the cables on behalf of the Air Force and reported his findings as follows:

> 5. The cable assemblies are manufactured with a polyethylene covering over the full length of the cable. When the cover remains intact, long term protection from corrosion can be expected. However, if the cover thickness is penetrated, moisture can contaminate the cable surface and corrosion results.
>
> 6. In service the cable covering does in fact become damaged. The primary cause of damage is from spring clips that hold the center beam fairings to the module.

Defendants' Joint Submission of Defendants' Deposition Exhibits, 88 Civ. 1120 (JMC), at Exh. 24 (S.D.N.Y. Dec. 1980) ["Deposition Exhibits"]. After the 1980 investigation, the Air Force continued to use the exact same cable that Babcock originally manufactured. Rather then replace the cable, the Air Force tried to prevent corrosion from occurring by replacing all of the old cables with new ones, warning its maintenance workers against cutting the cable's protective cover, and applying an anti-corrosive compound to the cables. Pat Santucci believed that the forward repositioning cable would not be subjected to corrosion provided that the cable cover remained intact. *See* Deposition of Pat Santucci, at 153, 88 Civ. 1120 (JMC) (S.D.N.Y. Jan. 11, 1989).

The undisputed evidence shows that the Air Force knew that the cable was susceptible to corrosion and that the Air Force decided to keep the cable and take measures to prevent corrosion from occurring. The government's continued use of the cable as originally constructed, following discovery of the corrosion, establishes that the government approved of the material composition of the cable. Accordingly, the Court finds that the defendants have satisfied their burden in establishing that the Air Force approved reasonably precise specifications.

The second component of the government contractor defense requires defendants to show that the equipment conformed to the specifications approved by the government. *See Boyle*, 487 U.S. at 512. Evidence that the government inspected and

accepted the products produced by the private contractor is sufficient to establish conformity with reasonably precise specifications. *See, e.g.*, Galik v. Lockheed Shipbuilding Co., 727 F. Supp. 1433, 1436 (S.D. Ala. 1989); *Zinck*, 690 F. Supp. at 1337; Crossan v. Electron Tube Div. of Litton Sys., Inc., 693 F.Supp. 528, 530 (E.D. Mich. 1986). To satisfy this requirement, defendants argue that the government accepted the forward repositioning cables only after subjecting them to stringent quality assurance inspections.

The record is replete with evidence that the government accepted delivery of the aircraft and the replacement forward repositioning cables only after comprehensive review and testing by government inspectors. Government inspectors also formally certified that the product conformed to specifications. Plaintiffs do not refute this evidence. Instead, plaintiffs argue that the second element is not met because the cable failed to perform, thereby establishing that the cable failed to conform to the general performance requirement that the cable be safely designed.

Plaintiffs' argument is unpersuasive. The Fourth Circuit explained that acceptance of such an argument would render the government contractor defense meaningless:

> Nonconformance to precise specifications must mean more than that the design does not work in compliance with some 'general admonition against an unwanted condition.' A product involved in a design-induced accident would, as a definitional matter, always be deemed not to comply with such generalities since no performance specifications approved by the government would purposely allow a design that would result in an accident.

Kleeman, 890 F.2d at 703. The purpose of the second element is to render the government contractor liable where the defect arises from the contractor's failure to adhere to the required military specifications. *See id.* Thus, a product's failure to perform safely does not constitute failure to conform to specifications. *See id.* Given the undisputed evidence that the government accepted the F-111 aircraft and the forward repo-

sitioning cable after extensive review, the Court finds that the second element of the government contractor defense is established as a matter of law. *See* Smith v. Xerox Corp., 866 F.2d 135, 139 (5th Cir. 1989); *Niemann*, 721 F. Supp. at 1027.

The last prong of the government contractor defense requires that the supplier warn the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States. *See Boyle*, 487 U.S. at 512. Plaintiffs argue that the third element is not satisfied because defendants failed to expressly advise the government that the cable was constructed out of carbon steel and polyethylene. The supplier, however, is not under any duty to advise the government of any dangers associated with the use of the product that were already known to the government. *See Zinck*, 690 F. Supp. at 1337.

Here, the danger from the use of the forward repositioning cable was its susceptibility to corrosion. The evidence establishes that the Air Force had greater knowledge of the corrosion problem than defendants. The Air Force discovered corrosion on some of the cables in 1979 and determined that the corrosion was due to the PPG fairing which cut into the cable's protective cover. Technical Order 1F-111-1309, which cautioned maintenance workers against cutting the cable's protective covering specifically stated that "[t]he purpose of this Time Compliance Technical Order is to eliminate the possibility of cable failure due to corrosion." Deposition Exhibits, at 25. To prevent corrosion the Air Force replaced all of the cables with new ones and treated the cables with an anti-corrosion compound. *See* Deposition of Robert L. Campbell, at 21-22, 88 Civ. 1120 (JMC) (S.D.N.Y. Jan. 13, 1989).

Plaintiffs do not dispute the evidence that the Air Force knew that the cable was susceptible to corrosion before the 1987 accident and that the Air Force decided to continue to use the cable. In view of the undisputed evidence, the Court finds defendants have established the third element of the government contractor defense. *See Zinck*, 690 F. Supp. at 1337-38.

Plaintiffs' final contention is that under the Fifth Circuit's decision in *Trevino*, the government contractor defense is unavailable to defendants even if the third element is satisfied.

Plaintiffs' reliance on the Fifth Circuit's decision in *Trevino* is wholly misplaced. In *Trevino*, the Fifth Circuit found that defendants were not entitled to the government contractor defense even though the third *Boyle* element was satisfied because the first two prongs of the defense were not satisfied. *See Trevino*, 865 F.2d at 1487. In this case, however, the third element of *Boyle* is satisfied as well as the first two elements.

In sum, the undisputed evidence shows that (1) the Air Force approved a forward repositioning cable susceptible to corrosion, in the face of known risks; (2) the Air Force accepted the cable after extensive review; and (3) the government had superior knowledge to that of defendants concerning the risks associated with the cable. Accordingly, the Court finds that defendants have established the government contractor defense as a matter of law, thereby shielding defendants from liability for design defects. In light of the Court's holding, it is unnecessary to address defendants' remaining arguments.

CONCLUSION

Defendant Babcock Industries Incorporated's motion for summary judgment is granted. Fed. R. Civ. P. 56. Defendant McDonnell Douglas Corporation's motion for summary judgment is granted. Fed. R. Civ. P. 56. Defendant General Dynamics Corporation's motion for summary judgment is granted. Fed. R. Civ. P. 56.

The Clerk of the Court is directed to dismiss the action and enter judgment for defendants.

SO ORDERED.

JOHN M. CANNELLA
JOHN M. CANNELLA
United States District Judge

Dated: New York, New York
June 8, 1992

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

No. 92-7703

Filed February 4, 1993

At a Stated Term of the United States Court of Appeals for the Second Circuit, held at the United States Courthouse in the City of New York, on the 4th day of February, one thousand nine hundred and ninety-three.

PRESENT: HON. THOMAS J. MESKILL, *Chief Judge*
HON. JAMES L. OAKES
HON. JON O. NEWMAN
Circuit Judges.

SCOTT E. LEWIS and VICTORIA LEWIS,
Plaintiffs-Appellants,

—v.—

BABCOCK INDUSTRIES, INC., MCDONNELL DOUGLAS CORP., and GENERAL DYNAMICS CORPORATION,
Defendants-Appellees.

MANDATE

Appeal from the United States District Court for the Southern District of New York.

This cause came on to be heard on the transcript of record from the United States District Court for the Southern District of New York and was argued by counsel.

ON CONSIDERATION WHEREOF, it is now hereby ORDERED, ADJUDGED and DECREED that the judgment of said District

Court be and it hereby is affirmed in accordance with the opinion of this court with costs to be taxed against the appellant.

ELAINE B. GOLDSMITH, Clerk
By:

/s/ EDWARD J. GUARDARO
Edward J. Guardaro
Staff Attorney

A TRUE COPY
ELAINE B. GOLDSMITH, Clerk
By Kathy Brown
Deputy Clerk

Issued as Mandate. 2-25-93